

REMARKS

The Office Action rejected claims 11, 13 and 15-17. Claims 1-10 and 18-23 were previously withdrawn and claims 12 and 14 were previously canceled. By this Amendment, to expedite prosecution of this application, claims 1-23 are canceled, and claims 24-28 are added. Claims 24-28 are currently pending in this application.

Section 103 Rejections

The Office Action rejected claims 11, 13 and 15-17 under 35 U.S.C. § 103(a) as being implantable over U.S. Patent 6,336,910 (“Ohta”) in view of U.S. Patent 5,282,466 (“Duffy”). While claims 11, 13 and 15-17 have been canceled, Applicants will address the cited references as they pertain to new claims 24-28.

The claimed invention is directed to an apparatus that is configured to assist in regeneration of a liver of a patient by providing oxygenated blood to the liver. In some instances, arterial blood may be withdrawn from the patient and may pass through an extracorporeal circuit for conditioning before being returned to the patient. The blood may, for example, be further oxygenated before being returned.

The claimed apparatus includes a first catheter that is configured to be fluidly coupled with a femoral artery of the patient, a second catheter that is configured to be fluidly coupled with a portal vein of the patient and an extracorporeal circuit that is fluidly connected between the first catheter and the second catheter such that arterial blood may flow into the first catheter, pass through the extracorporeal circuit and return to the patient through the second catheter.

The extracorporeal circuit includes an oxygenation device that is configured to be fluidly connected to a source of oxygen and to provide oxygen to blood flowing through the extracorporeal circuit and a control device that is configured to measure a hemacrit and a partial pressure of molecular oxygen in the blood flowing through the extracorporeal circuit and to provide feedback control to regulate a quantity of oxygen being provided to the oxygenation device.

Neither reference describes or suggests, either separately or in combination, the claimed invention. Ohta is directed to an extracorporeal circulation apparatus that is configured for inducing hypothermia by cooling a diluent and metering the cooled diluent into the patient’s bloodstream. Ohta does not describe or suggest, contrary to the Examiner’s assertions, the

claimed extracorporeal circuit that includes an oxygenator. Pumping a diluent, even if the diluent is dihydrogen oxide (water), does not qualify as an oxygenator that oxygenates a patient's blood.

Duffy describes a system for disabling an oximetric device in the presence of ambient light. While Duffy may disclose monitoring certain parameters of blood flow, Duffy does not describe or suggest a system configured to assist in regeneration of a liver of a patient by providing oxygenated blood to the liver and thus fails to remedy the noted shortcomings of Ohta.

Neither reference describes or suggests the claimed invention. Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

For the reasons explained above, all pending claims are now in condition for allowance. Accordingly, Applicants respectfully request that the Office issue a Notice of Allowance.

Applicants have made a good faith effort to respond to all rejections set forth in the Office Action and to place the pending claims in condition for immediate allowance. If the Examiner has any questions or comments, the Examiner is requested to contact the undersigned at 612-766-7217.

Respectfully submitted,

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